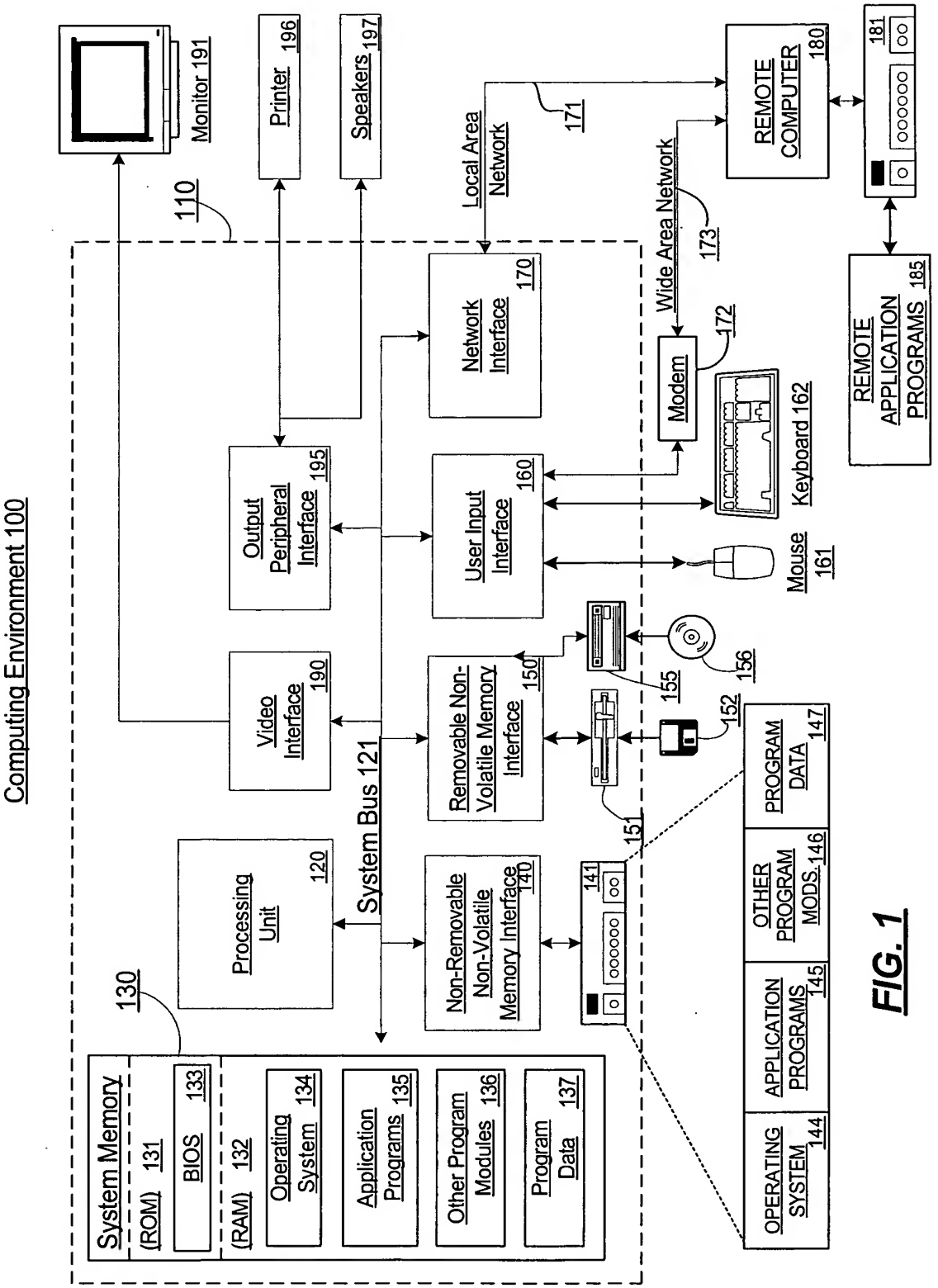
Computing Environment 100
110
Monitor 191
Printer 196
Speakers 197
Local Area Network
171
Wide Area Network
173
REMOTE COMPUTER 180
181
REMOTE APPLICATION PROGRAMS 185
Network Interface 170
Modem 172
Keyboard 162
Mouse 161
Output Peripheral Interface 195
User Input Interface 160
Video Interface 190
Removable Non-Volatile Memory Interface 150
155
156
152
151
System Bus 121
Processing Unit 120
Non-Removable Non-Volatile Memory Interface 140
141
130
System Memory
(ROM) 131
BIOS 133
(RAM) 132
Operating System 134
Application Programs 135
Other Program Modules 136
Program Data 137
OPERATING SYSTEM 144
APPLICATION PROGRAMS 145
OTHER PROGRAM MODS. 146
PROGRAM DATA 147

FIG. 1

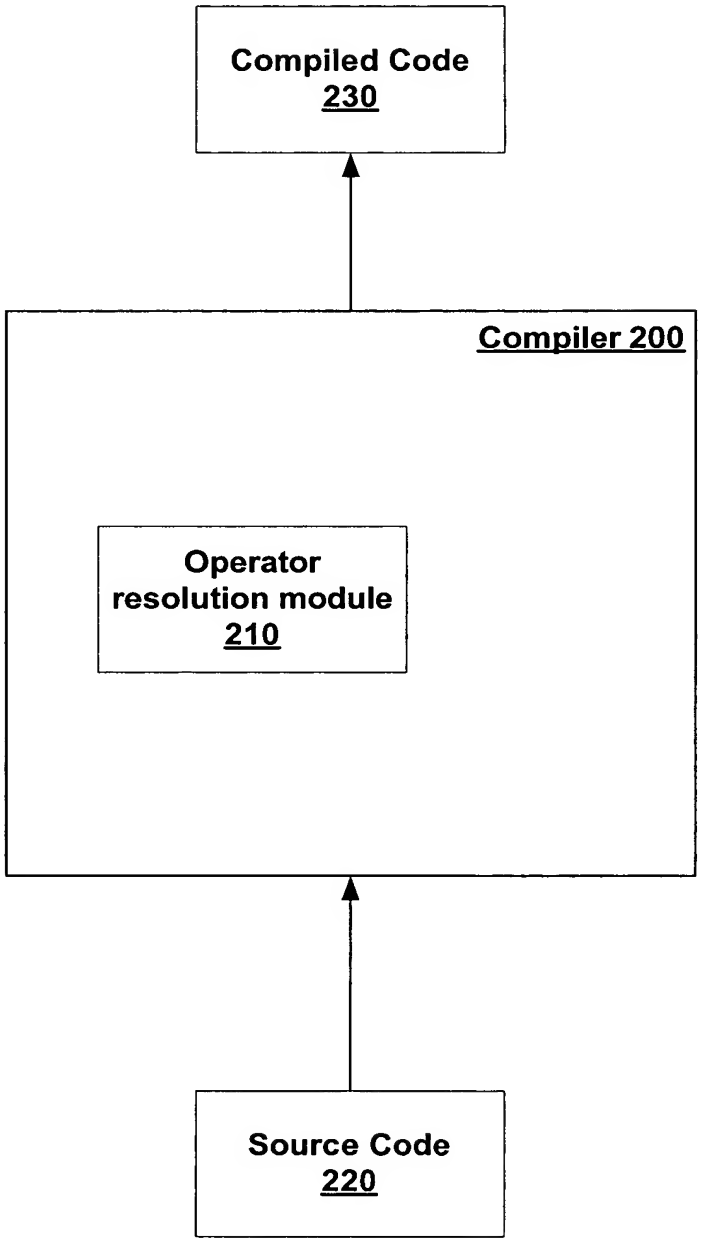
Compiled Code
230
Compiler 200
Operator
resolution module
210
Source Code
220

FIG. 2

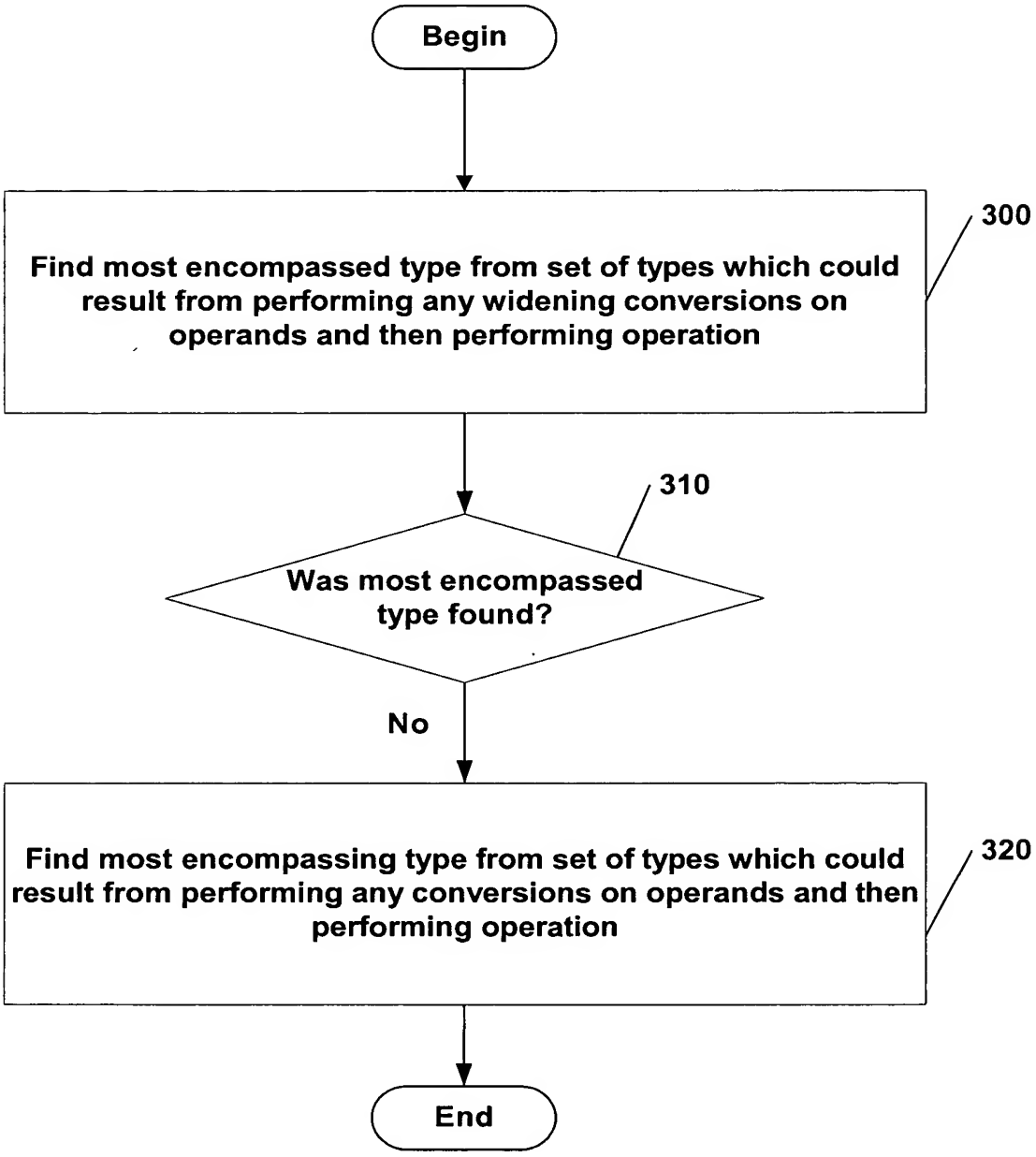
Begin
Find most encompassed type from set of types which could result from performing any widening conversions on operands and then performing operation
300
310
Was most encompassed type found?
No
Find most encompassing type from set of types which could result from performing any conversions on operands and then performing operation
320
End

FIG. 3

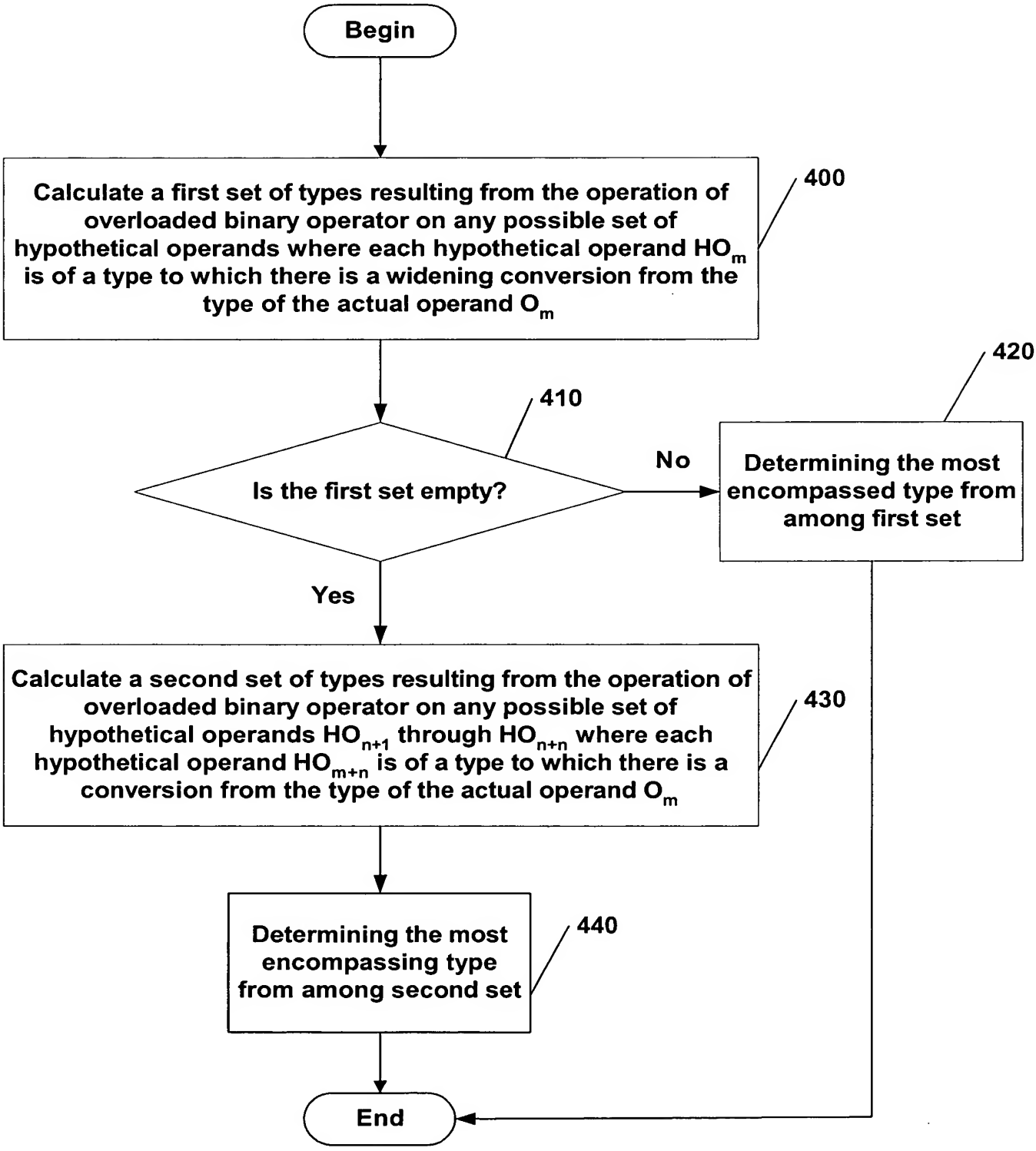
Begin
Calculate a first set of types resulting from the operation of overloaded binary operator on any possible set of hypothetical operands where each hypothetical operand HO_m is of a type to which there is a widening conversion from the type of the actual operand O_m
400
Is the first set empty?
410
No
Determining the most encompassed type from among first set
420
Yes
Calculate a second set of types resulting from the operation of overloaded binary operator on any possible set of hypothetical operands HO_{n+1} through HO_{n+n} where each hypothetical operand HO_{m+n} is of a type to which there is a conversion from the type of the actual operand O_m
430
Determining the most encompassing type from among second set
440
End

FIG. 4

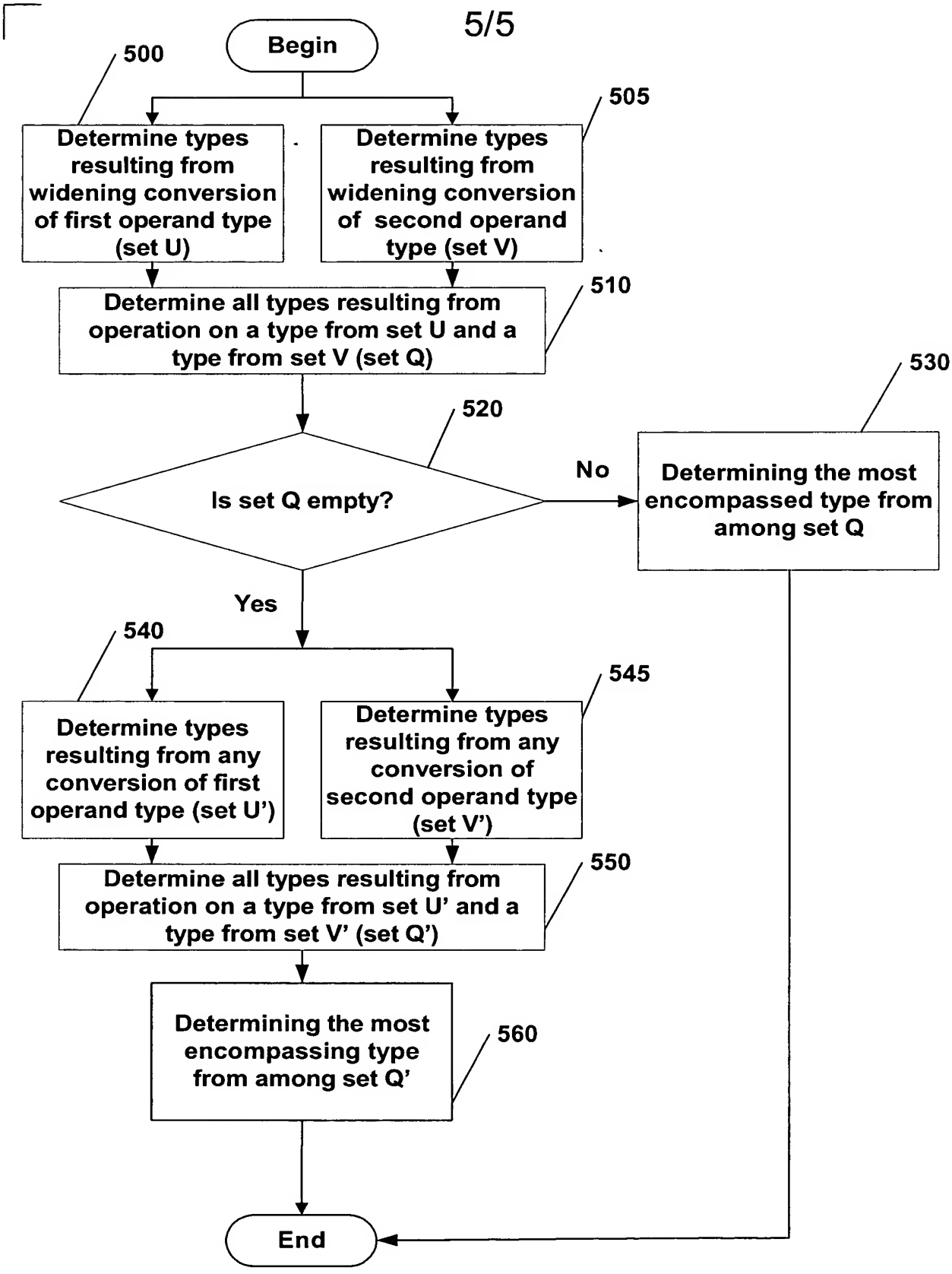
Begin
500
505
Determine types resulting from widening conversion of first operand type (set U)
Determine types resulting from widening conversion of second operand type (set V)
510
Determine all types resulting from operation on a type from set U and a type from set V (set Q)
520
530
Is set Q empty?
No
Determining the most encompassed type from among set Q
Yes
540
545
Determine types resulting from any conversion of first operand type (set U')
Determine types resulting from any conversion of second operand type (set V')
550
Determine all types resulting from operation on a type from set U' and a type from set V' (set Q')
Determining the most encompassing type from among set Q'
560
End

FIG. 5